

LAKE: WASSOOKEAG L (VLMP 19)
 TOWN: DEXTER
 COUNTY: PENOBCOT

MIDAS: 227
 TRUE BASIN: 1
 SAMPLE STATION: 1

WHOLE LAKE INFORMATION

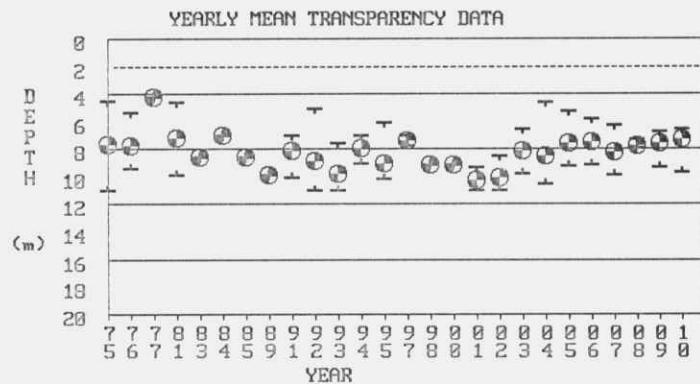
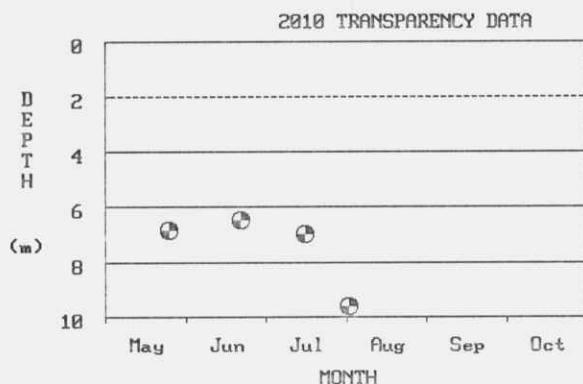
MAX. DEPTH: 26 m. (86 ft.)
 MEAN DEPTH: 8 m. (27 ft.)
 DELORME ATLAS #: 32
 USGS QUAD: DEXTER
 IFW REGION B: Belgrade Lakes (Augusta)
 IFW FISH. MANAGEMENT: Warmwater & Coldwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 417.0 ha. (1030.4 a.)
 FLUSHING RATE: 0.39 flushes/yr.
 VOLUME: 39117152.0 cu. m. (31732 ac.-ft.)
 DIRECT DRAINAGE AREA: 25.53 sq. km. (9.86 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. WASSOOKEAG L has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS/cm)	TOTAL PHOS. MEANS (ppb)	SECCHI DISK (m.)			CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES							
						CORE	GRAB	GRAB	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.				
	(SPU)	(mg/l)	(uS/cm)	CORE	GRAB	GRAB	GRAB	GRAB	MIN.	MEAN	MAX.	N	EPI	PHOS					
1975	-	-	-	-	-	-	-	-	4.4	7.6	11.0	6	-	-	-	28	-		
1976	1	7.50	29.0	78	7	-	9	7	5.3	7.7	9.4	6	1.3	1.9	2.4	-	-	28	-
1977	-	-	-	-	-	-	10	-	4.2	4.2	4.2	1	-	-	-	-	-	-	-
1981	5	7.40	26.0	64	12	-	9	-	4.5	7.1	9.8	5	0.7	1.4	1.8	46	-	31	23
1983	-	-	-	-	-	-	-	-	8.5	8.5	8.5	1	-	-	-	-	-	-	-
1984	-	-	-	-	-	-	-	-	7.0	7.0	7.0	1	-	-	-	-	-	-	-
1985	10	7.30	26.0	87	3	-	12	-	8.5	8.5	8.5	1	-	-	-	-	-	-	-
1989	5	-	28.0	40	5	-	-	-	9.8	9.8	9.8	1	0.9	0.9	0.9	-	-	-	-
1991	5	7.89	31.0	112	6	-	-	-	7.0	8.1	10.0	5	1.4	1.4	1.4	-	-	25	-
1992	-	-	-	-	-	-	-	-	5.0	8.8	11.0	4	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	7.5	9.7	11.0	5	-	-	-	-	-	18	-
1994	-	-	-	-	-	-	-	-	7.0	7.9	9.0	6	-	-	-	-	-	26	-
1995	-	-	-	-	-	-	-	-	6.0	9.0	10.1	5	-	-	-	-	-	21	-
1997	-	-	-	-	-	-	-	-	7.0	7.3	7.7	4	-	-	-	-	-	-	-
1998	22	-	34.5	91	6	-	-	-	9.1	9.1	9.1	1	1.3	1.3	1.3	-	-	-	-

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YEAR	MEAN	MEAN	MEAN	MEAN							CHLOROPHYLL A(ppb)				TROPHIC STATE INDICES				
	COLOR	pH	ALK	COND.	TOTAL PHOS.	MEANS (ppb)	SECCHI DISK (m.)				EPI PHOS			C		G		SEC	CHL
	(SPU)		(mg/l)	(µS)	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G		
2000	8	-	35.0	92	5	-	-	-	9.1	9.1	9.1	1	13.0	13.0	13.0	-	-	-	-
2001	-	-	-	-	-	-	-	-	9.3	10.2	11.0	5	-	-	-	-	-	-	16
2002	-	-	-	-	-	-	-	-	8.4	10.0	11.0	5	-	-	-	-	-	-	17
2003	-	-	-	-	-	-	-	-	6.5	8.1	9.7	5	-	-	-	-	-	-	25
2004	-	-	-	-	-	-	-	-	4.5	8.4	10.5	5	-	-	-	-	-	-	24
2005	8	7.76	31.2	104	-	6	-	-	5.2	7.5	9.2	5	-	-	-	-	-	-	29
2006	-	-	-	-	-	-	-	-	5.8	7.4	9.1	5	-	-	-	-	-	-	29
2007	-	-	-	-	-	-	-	-	6.2	8.2	9.8	5	-	-	-	-	-	-	25
2008	-	-	-	-	-	-	-	-	7.2	7.7	7.9	3	-	-	-	-	-	-	-
2009	-	-	-	-	6	-	-	-	6.7	7.5	9.3	3	1.0	1.0	1.0	-	-	-	-
2010	-	-	-	-	-	-	-	-	6.5	7.2	9.6	3	-	-	-	-	-	-	-
SUMMARY:	8	7.52	30.1	83	6	6	10	7	4.2	8.1	11.0	26	0.7	3.0	13.0	46	-	24	23

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

DEPTH	SAMPLE DATE									
	09/06/76	09/04/81	08/21/85	09/15/89	08/27/91	08/13/98	08/17/00	08/11/09		
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	18.2	8.9	20.8	9.6	22.8	8.8	19.3	9.2	20.9	8.6
1.0	18.2	8.8	-	-	-	-	19.3	9.1	20.9	8.7
2.0	18.2	8.8	20.5	9.5	22.9	8.8	19.3	9.1	20.9	8.7
3.0	18.2	8.8	-	-	-	-	19.3	9.1	20.9	8.7
4.0	-	-	20.2	9.5	22.7	8.8	19.3	9.2	20.9	8.7
5.0	18.2	8.8	-	-	-	-	19.3	9.2	20.9	8.7
6.0	18.2	8.8	20.2	9.5	22.2	8.8	19.2	9.3	20.9	8.7
7.0	-	-	-	-	22.0	8.7	18.7	9.3	20.5	8.6
8.0	18.2	8.8	20.1	9.5	20.9	9.3	16.3	10.6	20.2	8.6
9.0	14.1	9.0	19.0	9.1	17.5	10.4	12.2	11.2	19.5	8.4
10.0	-	-	14.2	8.8	15.0	10.8	10.2	10.0	16.9	9.0
11.0	11.5	7.8	-	-	-	-	9.5	8.5	12.2	8.8
12.0	10.3	6.8	10.5	5.5	12.0	7.1	8.5	6.6	11.5	7.0
13.0	-	-	-	-	-	-	8.0	5.7	10.0	6.7
14.0	9.8	5.7	9.2	3.6	10.8	5.4	7.8	5.1	9.0	6.2
15.0	9.1	4.9	-	-	-	-	7.7	4.7	9.2	5.7
16.0	-	-	8.5	3.1	10.0	5.0	7.4	4.5	9.2	5.7
17.0	9.0	4.5	-	-	-	-	7.3	4.3	9.0	4.8
18.0	8.8	4.0	8.2	2.7	9.5	4.2	7.3	4.1	-	-
19.0	-	-	-	-	-	-	7.2	3.4	-	-
20.0	8.7	3.5	8.0	2.4	-	-	7.1	2.8	8.9	4.3
21.0	8.5	3.2	-	-	-	-	7.0	2.1	-	-
22.0	-	-	8.0	1.6	9.0	2.3	7.0	2.1	8.9	3.6
23.0	8.2	2.6	-	-	-	-	7.0	1.7	-	-
24.0	8.2	1.9	-	-	-	-	7.0	1.5	-	-
25.0	-	-	-	-	-	-	7.0	0.2	8.9	3.1
26.0	-	-	-	-	9.0	0.7	-	-	-	-

WATER QUALITY SUMMARY

WASSOOKEAG LAKE, Dexter

Midas: 227, Basin: Primary- 01

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate present water quality, track algae blooms, and determine water quality trends. This data set does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring data for Wassookeag Lake have been collected since 1975 (17 individual years). During this period, 7 years of basic chemical information were collected, in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Wassookeag Lake is considered to be above average, based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algae blooms on Wassookeag Lake is low.

Water Quality Measures: Wassookeag Lake is an uncolored lake (average color 8 SPU) with an average SDT of 8.2m (26.9ft). The range of water column TP for Wassookeag Lake is 3-12 parts per billion (ppb) with an average of 6 ppb, while Chla ranges from 1.1-2.4, with one high reading of 13.0 ppb and an average of 3.8 ppb. Recent dissolved oxygen (DO) profiles show little DO depletion in deep areas of the lake. The potential for TP to leave the bottom sediments and become available to algae in the water column (internal loading) is low. Oxygen levels below 5 parts per million stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

Filename: wass0227, Revised: 3/02, By: rjb